

AK

Notice of Allowability	Application No.	Applicant(s)	
	09/917,904	ELWOOD ET AL.	
	Examiner	Art Unit	
	Jeffrey R. West	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 01 April 2005.
2. ☒ The allowed claim(s) is/are 5-17 and 22-28.
3. ☒ The drawings filed on 23 July 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

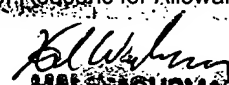
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


HAL WACHSMAN
 PRIMARY EXAMINER
 A. 12857

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Dennis P. Cawley on June 09, 2005.
3. The application has been amended as follows:

In claim 10, line 9, "the normalizing step" has been changed to ---the normalizing-
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In claim 28, line 9, "the normalizing step" has been changed to ---the normalizing-
--.

In claim 28, line 18, "percentage of respective" has been changed to ---
percentage of said respective---.

Allowable Subject Matter

4. Claims 5-17 and 22-28 are considered to be allowable over the cited prior art for the following reasons.

U.S. Patent No. 4,701,415 to Dutton et al. discloses a controlled gas atmosphere incubator (column 4, lines 26-30) with a carbon dioxide sensor and an oxygen sensor disposed therein (column 7, lines 30-37 and 64-67) and an embedded controller that accesses a plurality of set points/values (column 10, lines 3-10) and monitors the set points/values for temperature and gas concentration changes to determine a failure condition (column 11, lines 19-45), wherein upon the occurrence of a failure condition, a re-settable alarm interface display is activated to indicate the failure condition to a user (column 11, line 45-49 and column 12, lines 11-16). Dutton also discloses a cumulative clock (i.e. timer) in the controller for use in the main testing operation (column 11, lines 10-18).

JP Publication No. 08-233770 to Hatai teaches an electrochemical gas sensor and a corresponding method for analyzing the gas sensor for lifetime adjustment values, at predetermined sensor operation time intervals determined by a clock, comprising obtaining lifetime data from the sensor, adjusting the lifetime data obtained based up a stored calculation rule, and comparing the adjusted lifetime data to predetermined thresholds (0013) in order to display warning results to a user in the form of deterioration indications of the sensor (i.e. predetermined values of no deterioration) (abstract). Hatai also teaches performing the adjusting with the calculation rule according to data stored in a look-up table of temperatures ranging from -10 to 50 degrees Celsius, including 20 degrees Celsius (0015-0018).

U.S. Patent No. 3,950,985 to Buchwald et al. teaches an improved method for monitoring the service life of components (column 1, lines 8-10) including means for obtaining a remaining service life (column 2, line 64 to column 3, line 9) and normalizing the remaining service life to an hour count stored at a specified temperature (column 1, lines 31-35 and column 3, lines 48-62) wherein the components are under constant stress and temperature (column 4, lines 1-3).

U.S. Patent No. 5,741,413 to Capetanopoulos. teaches a gas sensor and method of use as well as a method for calibrating/normalizing the gas sensor wherein prior to calibrating/normalizing the gas sensor, a gas concentration and temperature is held constant over a time interval (column 2, lines 46-57).

U.S. Patent No. 6,490,543 to Jaw teaches a lifeometer for measuring and displaying life systems/parts including means for tracking data under unchanged conditions and using a rate of usage and amount of time operated to calculate present usage, operating history, and life expectancy information to determine and calculate used life and/or life remaining.

U.S. Patent No. 6,279,377 to Cao teaches a method and apparatus for monitoring oxygen concentration including an oxygen concentration sensor, processor, display (column 3, lines 43-58) and re-settable alarm (column 5, lines 50-67). Cao also teaches calibrating the monitoring device according to a table having

oxygen concentration values, which are a function of pressure and temperature, wherein in order to perform calibration the actual output of the sensors are normalized to expected values defined in the table (column 7, lines 11-28).

As noted above, the cited prior art teaches many of the features of the claimed invention. None of the cited prior art, however, teaches or suggests in combination with the other claimed limitations for a predictive warning system/method for an incubator gas sensor comprising adjusting a percentage gas sensor lifetime hours measurement and normalizing the adjusted measurement to an hour count stored as a percentage of lifetime hours used (i.e. consumed) at a temperature of 20 degrees Celsius, in an embedded controller of the incubator, wherein a gas concentration and gas sensor temperature are held constant over a previous hour prior to performing the normalization.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the

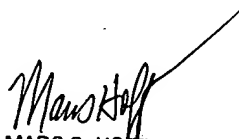
Art Unit: 2857

examiner should be directed to Jeffrey R. West whose telephone number is (703)308-1309. The examiner can normally be reached on Monday through Friday, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

jrw
June 10, 2005


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800